Request for Proposals
Part C*

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Department of Executive Services
Finance and Business Operations Division
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SECTION 1 - INTRODUCTION

1-1 Introduction

King County is a multi-purpose government that provides regional services to all residents including people who live in Seattle, surrounding cities and unincorporated areas. It is composed of three major branches: Executive, Judicial and Legislative. The King County Executive is the elected executive officer of County government. The Metropolitan King County Council, the legislative branch of County government, adopts laws, sets policies and holds final approval over the budget.

King County delivers services to an area that consists of 2,200 square miles, ranking 11th in geographical size among Washington State's 39 counties. The County ranks number one in population in the State of Washington and is the financial, economic, and industrial center of the Pacific Northwest Region. As of December 31, 2001, the County contained 39 incorporated cities, which accounted for approximately 80 percent of its population. With approximately 1.8 million people, King County also ranks as 12th most populous County in the nation.

King County is committed to providing the lowest possible total cost of ownership (TCO) combined with best of breed products while still meeting or exceeding our internal service commitments and business requirements.

To that end, it is the intent of King County to establish a long-term business relationship with a Proposer for the provision of all or some of the following products and services that best fit King County's goals.

This Request for Proposal (RFP) seeks an Internet Service Provider (ISP) for King County Government (County), the King County Institutional Network (I-NET) and, potentially, the City of Seattle (City). (These three collectively are referred to hereinafter as "Partners.") The County will negotiate and administer the contract on behalf of itself and I-NET and the City, should they choose to participate, will negotiate and administer the contract on behalf of itself. The County will make payments due under such contract for itself and I-NET and the City will make any payments due for itself under such contract. Additional public agency partners may join the County during the term of any contract signed pursuant to the RFP.

Each Partner may elect to award more than one contract or to select multiple contractors as a result of this RFP process, including the option of purchasing some services from one Contractor, and other services from a different Contractor. All decisions regarding multiple contracts and/or multiple Contractors shall be at the sole discretion of the Partners.

The term of any contract resulting from this RFP one (1) year with four (4) one year options, commencing upon the date of the contract award.

1-2 Environment

A. Current Services

The Partnership includes more than 28,000 users that require access to the Internet. King County has approximately 15,000 users and the City has approximately 13,000 users. The Partners currently maintain two Internet connections supplied by different providers. The Providers have achieved a greater than 99.99% level of availability for the Partners. It is important that Proposers responding to this RFP be capable of matching or increasing this level of availability.

B. Internet Access Requirements

As the Partners incorporate Internet-based applications to support critical business functions, they require extremely stable and highly reliable Internet access services. The Partners require an availability factor of at least 99.99% at all times.

C. King County

King County has a large enterprise network linking over 200 locations providing data service. The County's network backbone consists of a fiber ring serving six major sites in downtown Seattle and two in outlying areas. The County operates a multi-gigabit Ethernet enterprise backbone. Remote sites across the County are connected to the backbone using T1, Domain Specific Language (DSL), and more recently, transparent local area network (LAN) service provided by the King County Institutional Network (I-NET).

The King County network supports computing needs of over 15,000 users within King County government. The County is becoming increasingly dependant upon access to the Internet to support internal government functions and to provide public information and services to its residents.

D. I – NET

I-NET participants include schools in unincorporated King County, the King County Library System (KCLS), King County government sites, suburban cities, public safety agencies, courts, public health facilities and other not-for-profit entities. For a more detailed view of the I-NET, see the web pages at www.metrokc.gov/i-net/overview.htm. In addition to transport services, the I-NET provides a routing layer network access point (I-NAP) where participants can exchange Internet Protocol (IP) based traffic with each other.

I-NET provides Internet services to interested participants via the I-NAP. I-NET participants may also use the I-NET/I-NAP combination as a transport to their current ISP. I-NET is also a member of the Seattle Internet Exchange (SIX).

E. City of Seattle

The City operates a gigabit Ethernet enterprise backbone. This network connects offices in nine (9) major downtown buildings via City owned fiber optic cable. Remote branch offices are connected to the backbone by way of T1, DSL or Integrated Services Digital Network (ISDN) lines. Attached to the backbone are 200 Ethernet local networks with a total of more than 13,000 connected devices. The City provides Internet and connectivity support to more than 30 City departments, including utilities and public safety departments.

SECTION 2 - TECHNICAL / MANAGEMENT

2-1 General Overview

A. Briefly describe the history of your company as an Internet Service Provider.

B. Briefly describe your company's strategy for maintaining an interoperable, interconnected global Internet over the next five years

Each description should be one page or less. The Proposer may include other promotional or explanatory material separately and in addition to its response to the RFP.

2-2 References

Provide at least two (2) and no more than five (5) references of organizations of similar size and configuration to that of the Partners.

For each reference, provide the organization's name, a contact person, e-mail and phone number.

At your option, you may provide a web address and/or a paragraph describing the service provided to each reference.

2-3 Minimum Requirements

Proposers responding to this RFP must be able to meet the minimum requirements listed below. Proposals which fail to meet the minimum requirements specified in this section will not receive further consideration.

A. The proposed connection must be directly to the provider's national backbone in Seattle. Proposers in Seattle with multiple diverse paths to their backbone will be preferred.

B. Connections between Seattle and the rest of the provider's national backbone must significantly exceed the speed of the proposed user interface. Existing and planned connections to the provider's Seattle Points of Presence (POPs) should be clearly delineated in the network topology sections.

C. Physical connection(s) between the service provider and the Partners shall be via fiber using Gigabit interfaces. In addition, Proposers are requested to provide a list of alternate connection points to their network.

D. Routing connectivity between the service provider and the Partners shall be based upon Border Gateway Protocol (BGP). The Partners require two (2) BGP transit peering sessions (one with AS3401 and one with AS2544). Full routes shall be passed to Partners via BGP. The two (2) peering sessions must be on two (2) different physical interfaces, with pricing based on aggregate use.

E. Partners also peer with other providers and with each other and require normal cooperation between all peers to ensure correct configuration.

F. Partners will originate their own IP prefixes within their own Autonomous Systems. The Partners will not require any additional address space, with the single exception that the Proposer shall provide the subnet(s) used for connection(s) to the Partners. The Partners are American Registry of Internet Numbers (ARIN) registered owners of the following address space:

County:	146.129.0.0/16
County:	198.49.222.0/24
City:	156.74.0.0/16

G. The Partners require secondary Domain Name Service (DNS) for a number of domains. This number is expected to grow from the present 25. The total is not expected to exceed 75.

H. The Contractor shall provide the Partners with Network Operations Center (NOC) support 24 hours per day, seven days per week. The NOC shall be located in the continental United States.

I. The proposed solution must also include Looking Glass technology. (A Looking Glass is a piece of software running as a CGI on an ISP's webserver that allows external users to get a look at routing and network behavior within their network. Looking Glasses are most commonly used for verifying routing between providers, and for verifying that routes are propagating correctly across the Internet.)

* Proposals that do not meet the minimum requirements specified in this section will not be considered.

2-4 Exchange Points

Describe the “Exchange Points” network connections you maintain with other Internet Service Providers. For example, does your network exchange data with other Internet Service Providers at major public and private main exchange points?

Include link speeds, protocols and any planned upgrades and schedules for the same. Include a copy of your policy for non-transit peering.

2-5 Policy for Unrestricted Gateway Access

Describe your policy toward unrestricted gateway access without additional fees, tariffs or charges.

The Partners reserve the right to connect other public or non-profit entities to their network and for their traffic to utilize the ISP-provided services. The Partners will not resell services for profit.

SECTION 3 - NETWORK INFRASTRUCTURE AND ROUTING

Since stability and reliability issues are of primary concern to the Partners, describe how the links between the Partners, the Contractor, and the Contractor's network and their providers are designed.

3-1 Topology

Describe your backbone topology. Include the following information:

A. All current and planned hub locations and associated backbone connections

B. Current internal link speeds, bandwidths associated with each link and protocols (e.g. ATM, SONET, Gigabit, etc.)

C. Planned schedules to upgrade internal link speeds and/or protocols

3-2 Network Architecture

A. Describe in detail and attach a diagram showing your current network backbone architecture in Seattle, as well as in the greater Pacific Northwest.

B. Describe and attach a second diagram showing your nationwide network/backbone POP architecture.

C. Indicate on all drawings: Location, physical Link Speed and type, public peering point, private peering point, and any relevant information that can provide a better understanding of your current Seattle, Washington State and national IP network architecture.

D. Show the location of your NOC, NMS, DNS servers, and any applications or caching equipment on all drawings.

E. List Peering Agreements implemented with other service providers in Seattle and within the state of Washington.

F. For each agreement denote; the location of connection, the speed ofconnection and the type of routing (BGP, Static, etc.) used.

3-3 IP Address Allocation

A. Indicate whether IP class C subnets can be assigned from the Contractor's IP block without going through ARIN.

B. State your policy regarding advertising IP addresses when working with another ISP to provide services to the same customer.

C. Discuss IP address portability as it relates to;

1. Customers getting service later from another provider and wishing to take addresses with them when they move
2. Customers bringing address with them initially.

3-4 BGP Routing Policy

Describe the routing technique and strategy interior to your backbone:

A. Indicate your current BGP routing policy for the Seattle area POPs.

B. Provide any unusual BGP configurations/requirements or route/CIDR block filters that exist in your nationwide IP network.

C. Indicate your route damping/suppression policy and the associated timer setting, if applicable.

D. Describe your use of RADB or other routing registries.

3-5 New Protocols

A. Describe your company's plan to migrate to new protocols, such as IPv6, with particular emphasis on coordination with, and support of, customer requirements.

B. Describe your current and planned support for differentiated services (Dif SRV), RSVP, MPLS and/or other quality of service protocols.

C. Describe your current and planned support for multicast protocols and implementations, specifically including PIM, CGMP and MBONE.

SECTION 4 - WORK SUPPORT SERVICES

4-1 Network Operations Center (NOC)

A. Briefly describe your NOC

B. Do you outsource any or all of your NOC?

C. If applicable, to who is the NOC outsourced?

D. What is the telephone number of your NOC?

E. Our requirement is to have the NOC phone answered 7 x 24 by someone who can fix the outages we have, rather than enter our issue in the database for another person to handle later. Please describe the levels of engineering/network design capabilities of your NOC representatives.

F. What network monitoring activities does your NOC perform?

G. Describe any reports detailing availability and utilization that are available to customers.

H. How often are reports made available?

I. Are they available via the Internet?

4-2 Notification of Problems to Customers

Describe procedures for notifying customers of outages and other problems, including security breaches and other failures that affect customer interconnectivity, availability and integrity of the system.

4-3 Service Level Agreement

Provide your firm's Service Level Agreement (SLA) that includes; guaranteed service levels for network availability, outage notification policy, maximum duration of outages, network latency and maximum packet loss. The SLA should clearly state that your firm will meet or exceed all the minimum requirements listed in Part C, Section 3.3.

Describe your firm's process of notification and any circumstances that govern any changes in their SLA. Include escalation procedures, as well as performance penalties.

4-4 Security Issues

Describe your security monitoring for addressing security breaches, including denial of service, attacks and other threats.

4-5 Customer Problem Escalation Procedures

Describe in detail your trouble reporting procedures, as well as internal escalation procedures and the associated response times.

4-6 Availability of Local Staff for Technical Support and Problem Resolution

Please describe the number and type of staff who work for your company in the Seattle area and the local ability to respond to problems.

4-7 Maintenance Window

Please define your maintenance window and the associated customer notification time.

4-8 Days and Hours of Operation

Please provide the days and hours of operation, including weekends and holidays, for all services including network monitoring and problem resolution.

4-9 Disaster Recovery Plans and Procedures

Describe your Disaster Recovery Plan, including redundancy and failover protection for Seattle and Washington State POP and your national data backbone.

4-10 Minimum Response Time

What is your minimum guaranteed response time to requests for gateway router and DNS configuration changes?

4-11 Provision

Assuming the City and the County both enter into agreements as a result of this RFP, we require two (2) separate ports for the Partners, one (1) for the City and one (1) for the County. Each Partner would handle its own advertisements and routing. Neither of the Partners would traverse the other. Describe how you would provision the Partners. Include a drawing showing all elements of the configuration.

SECTION 5 - FINANCIAL

5-1 Pricing

The proposal shall be for “commodity” Internet service. The Partners expect pricing to be based on peak usage. A typical proposal will have pricing based on the 95th percentile of peak traffic sampled each five (5) minutes and adjusted up or down each quarter of the year.

Variations on the sampling, price point and adjustment period are acceptable, but should be clearly spelled out. Other proposed pricing models may be considered at the County's discretion.

Price quotations must include all non-recurring and recurring costs. For all quotations, indicate pricing and expected time to complete installation of circuit(s) and routing configuration(s) following receipt of order.

Provide a pricing table for peak bandwidth from 80 Mbps to 150 Mbps. Include incremental (per Mbps) pricing for each.

Mbps	Price	Price for Each Additional Mbps
80		
90		
100		
110		
120		
130		
140		
150		

The Partners require secondary DNS services for a number of domains. This number is expected to grow from about 25 at present. The total is not expected to exceed 75. Please call out any additional costs associated with this service.

Include a table showing any additional costs associated with IPv6 address space or any services described in Part C, Section 4.5 – New Protocols.

Describe any costs associated with address request and assignment, as described in Part C, Section 4.3 – IP Address Allocation.

5-2 Discounts

Describe any discounts available or offered by your company such as:

A. Multiple connections at a single location

B. Multiple connections that are location independent

C. Enhanced discounts when additional circuits are added to a location after initial deployment

D. Multi-year contract

E. Discounts available as the sole provider of proposed services

5-3 Cancellation Notice

Describe any cancellation notice requirements.

5-4 Policy for Reimbursement

Describe your reimbursement policy for network downtime.